REMARKS

This application has been reviewed in light of the Office action dated July 26, 2007. Claims 1-8 and 12-17 are pending in the application. By the present amendment, claim 7 has been amended, and claims 9-11 have been canceled without prejudice. Claims 12-17 have been added. No new matter has been introduced. The Examiner's reconsideration of the rejection in view of the amendment and the following remarks is respectfully requested.

By the Office Action, claims 1-11 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Application No. 2002/0071415 to Soulabail et al. (hereinafter Soulabail) in view of U.S. Patent No. 5,642,355 to Smith (hereinafter Smith).

Claim 1, recites, *inter alia*, a method in a time division duplex mobile communication network comprising ... arranging time slots in a frame in the time division duplex mobile communication network so that if the propagation delay between the base station and a first mobile station is less than the propagation delay between the base station and a second mobile station, the first mobile station is permitted to transmit in a time slot before the time slot of the second mobile station in the frame; and where the frame has a guard time between transmissions from the base station to the mobile stations and transmissions received by the base station from the mobile stations, setting the guard time in the frame to a value based on the propagation delay between the base station and the first mobile station.

Soulabail is directed to a system that attempts to preserve or reduce guard time. The system of Soulabail creates a longer guard period for downlink delay and a shorter guard period for uplink delay (see page 3, paragraph [0041]). As the Examiner has stated Soulabail

fails to teach: arranging time slots in a frame in the time division duplex mobile communication network so that if the propagation delay between the base station and a first mobile station is less than the propagation delay between the base station and a second mobile station, the first mobile station is permitted to transmit .in a time slot before the time slot of the second mobile station in the frame.

However, Soulabail further fails to teach or suggest: where the frame has a guard time between transmissions from the base station to the mobile stations and transmissions received by the base station from the mobile stations, setting the guard time in the frame to a value based on the propagation delay between the base station and the first mobile station. Instead, Soulabail sets a guard time based upon by dividing a prescribed or given guard time unequally between down link and uplink frames (see paragraph [0041]). The prescribed guard time is determined based upon the "practical constraints" (see the last four lines of paragraph [0046]). There is no teaching or suggestion of determining the guard period as set forth in the present claims. In Soulabail, since the uplink and downlink periods may take unequal amounts of time, the guard time can be borrowed from one to the other. No guard period is disclosed or suggested that has a value based on the propagation delay between the base station and a first (closest) mobile station as recited in the present claims.

Soulabail does not disclose or suggest, *inter alia*, arranging time slots in a frame in the time division duplex mobile communication network so that if the propagation delay between the base station and a first mobile station is less than the propagation delay between the base station and a second mobile station, the first mobile station is permitted to transmit .in a time slot

before the time slot of the second mobile station in the frame. The Examiner cited Smith to cure these deficiencies.

Smith rearranges timeslots in a frame in increasing order with a virtual distance (VD). The virtual distance is used rather than a real distance to order timeslots in a frame. (see col. 6, lines 34-35). While timeslots are arranged in increasing order, Smith does not disclose or suggest anything regarding guard times. As such Smith fails to cure the deficiencies of Soulabail in that the combination of references fails to disclose or suggest at least: setting the guard time in the frame to a value based on the propagation delay between the base station and the first mobile station.

In accordance with the present principles, the timeslots in a frame are arranged to provide not only reduced round trip time (RTT) but also to reduce the guard time between up and down link frames. Even if combined, Soulabail and Smith fail to disclose or suggest at least setting the guard time in the frame to a value based on the propagation delay between the base station and the first mobile station. As such claim 1 is believed to be in condition for allowance over the cited combination.

Claim 7 now recites, *inter alia*, a method of operating a base station in a time division duplex mobile communication network including: ... waiting a guard time interval, the guard time interval being set to a value based on a round-trip propagation delay between the base station and a first mobile station; and receiving uplink transmissions in an uplink superframe, the uplink superframe further comprising a plurality of uplink time slots, each uplink time slot allocated to a mobile station in the time division duplex communication network, the uplink time slots arranged so that a first uplink time slot at the beginning of the uplink

superframe is allocated to the first mobile station, the first mobile station selected so that the round-trip propagation delay between the base station and the first mobile station is shorter than at least one other mobile station in the time division duplex communication network.

Claims 7 includes, *inter alia*, waiting a guard time interval, the guard time interval being set to a value based on a round-trip propagation delay between the base station and a first mobile station, which is not disclosed or suggested by the cited combination of references. As such, claim 7 is also believed to be in condition for allowance for at least the same reasons as stated for claim 1. Claims 2-6 and 8 are also believed to be allowable due at least to their dependencies from claims 1 and 7.

Claims 9-11 have been canceled without prejudice. Claims 12-17 have been added. It is respectfully submitted that the pending claims are in condition for allowance for at least the reasons stated.

The fee $460 for the two-month extension of time to respond may be charged to Applicant's Deposit Account No. 14-0627. It is believed that no additional fees or charges are currently due. However, in the event that any additional fees or charges are required at this time in connection with the application, they may be charged to Deposit Account No. 14-0627.

In view of the foregoing amendments and remarks, it is respectfully submitted that all the claims now pending in the application are in condition for allowance. Early and favorable reconsideration of the case is respectfully requested.

Respectfully submitted,

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